

**HS6000 Series High-Security
Camera Enclosure**

Installation/Operation Manual

C495M-D (12/96)

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REVISION HISTORY

Manual #	Date	Comments
C495M	5/90	Original manual.
C495M-A	9/95	Manual revised to include Tamper Switch Kit installation information. Manual updated to new style.
C495M-B	11/95	Manual revised to include updated tamper switch/bracket part numbers and exploded view diagram.
C495M-C	1/96	Revised to include tamper switch installation, specification description, and new part numbers per ECO 95-397.
C495M-D	12/96	Revised Figure 6, Exploded Assembly Diagram and Section 7.1 Mechanical Parts List.

INSTALLATION/OPERATION MANUAL HS6000 SERIES HIGH-SECURITY CAMERA ENCLOSURE

1.0 WARNINGS

Prior to installation and use of this product, the following WARNINGS should be observed.

1. Installation and servicing should only be done by Qualified Service Personnel and conform to all Local codes.
2. Unless the unit is specifically marked as a NEMA Type 3, 3R, 3S, 4, 4X, 6, or 6P enclosure, it is designed for indoor use only and it must not be installed where exposed to rain and moisture.
3. Only use replacement parts recommended by Pelco.
4. After replacement/repair of this unit's electrical components, conduct a resistance measurement between line and exposed parts to verify the exposed parts have not been connected to line circuitry.
5. The installation method and materials should be capable of supporting four (4) times the weight of the enclosure, pan/tilt, camera and lens combination.
6. The camera and lens combination shall not exceed 40 lbs (18 kg).

The product may bear the following marks:

This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.



CAUTION:

TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.



CAUTION:

RISK OF ELECTRIC SHOCK.
DO NOT OPEN.

Please thoroughly familiarize yourself with the information in this manual prior to installation and operation.

2.0 SCOPE

The information within this manual covers the installation of the HS6000 High Security Camera Enclosure.

3.0 DESCRIPTION

The HS6000 is a high security camera enclosure with multiple camera capabilities designed for indoor “ceiling mount” installation for such applications as parking garages, hallways, prisons, detention cells, etc., requiring maximum protection from vandalism. Designed to fit flush to the ceiling, the HS6000 comes standard with two (2) of its four (4) window ports utilized. Optional windows or blank filler plates may be ordered as needed. Provisions are made for mounting a 4" speaker on the bottom of the enclosure. The window ports provide adequate area for the installation of infra-red illuminators.

Constructed of heavy gauge steel, the HS6000 will accept most CCD cameras with fixed focal length lenses ranging in size from 4 mm to 75 mm. For multi-camera applications, camera/lens selection is critical and may require the use of 2-piece cameras. There is no exposed mounting hardware securing the HS6000 to its mounting surface. Opening the hinged access doors can only be accomplished with a specially designed tool, eliminating the possibility of the enclosure being opened by unauthorized personnel.

A factory-installed tamper switch provides added security.

Optional accessories include a heater/blower kit in either 120 VAC, 230 VAC, or 24 VAC (HB6000, HB6000/220, HB6024).

3.1 MODELS

HS6000 High security ceiling mount enclosure designed to fit flush with the ceiling. For use in applications such as parking garages, hallways, prisons, detention cells, etc., requiring maximum protection from vandalism. Multiple camera capabilities.

3.2 OPTIONS

HB6000 120 VAC thermostatically controlled heater and blower. Heater provides 80 watts of heat and activates ON at 40°F; OFF at 60°F. blower provides internal air circulation and activates ON at 110°F; OFF at 80°F.

HB6000/220 Same as HB6000 except 230VAC operation.

HB6024 Same as HB6000 except 24 VAC operation.

HS600010018 Extra window

HS8000TT Tilt table assembly

4.0 INSTALLATION

Before installing the HS6000 to a ceiling, make certain that the mounting surface is able to support the full weight of the enclosure, plus the camera/lens and any other options (i.e., speaker, IR illuminators, heater/blower kits).

The lower portion of the enclosure can and should be removed from the mounting plate to simplify installation.

NOTE: The eight (8) fasteners required to secure the HS6000 to a ceiling (minimum 3/8" diameter recommended) are not supplied.

Provisions have been made to attach various dual duplex conduit boxes to the mounting plate. The electrical boxes are not supplied.

4.1 MOUNTING THE UNIT

To mount the enclosure to a ceiling, perform the following steps:

1. Open the two (2) access doors by removing four (4) (two [2] each door) 1/4-20 “Tampruf” screws. A special socket is provided (fits 1/4" square drive). The doors hinge down.
2. Using the mounting plate as a template, mark and drill holes in the mounting surface.

NOTE: The removal of eight (8) 1/4-20 “Tampruf” screws around the perimeter of the mounting plate will separate it from the rest of the enclosure.

3. Attach the enclosure (mounting plate) with the required fasteners.
4. Route the required cables through the knockouts.

5. Mount the camera/lens to the ball swivel provided.

NOTE: An optional tilt table assembly (HS8000TT) may be used instead.

If removed, replace lower portion of enclosure.

6. Make all appropriate connections (i.e., camera power, video (coax), lens, speaker, IR illuminator, heater/blower kits).
7. Position the camera and tighten the ball swivel outer collar to secure.
8. Close the access doors and check that all components clear. Secure the doors with the four (4) (two [2] per door) 1/4-20 "Tampruf" screws provided.

4.2 SPEAKER INSTALLATION

The HS6000 provides a position for mounting a small speaker (3" x 3" bolt pattern) to be provided by the user.

The speaker grill is shipped with a cover plate mounted over it on the inside. This plate must be removed prior to speaker installation.

4.3 OPTIONAL HB6000, HB6000/220, HB6024 HEATER/BLOWER KITS

The HB6000, HB6000/220, and HB6024 heater/blower kits require 120 VAC, 230 VAC, or 24 VAC respectively. They provide 80 watts of heat which is thermostatically controlled to turn ON at 40°F (4.44° C) and turn OFF at 60°F (15.56° C). They also provide internal air circulation which is thermostatically controlled to turn on at 110°F (43.44° C) and OFF at 80°F (26.67° C).

4.3.1 Recommended Cable Size

CAUTION: When using a single power source for both the camera and accessories, the camera power consumption must be taken into consideration when determining the wire gauge.

The following cable sizes are the minimum recommended for use with the combination of blower/heater/camera.

Model	Input Voltage	Power Consumption	Cable Size	Cable Distance
HB6000	120 VAC	90 watts	22 Awg	464.7 ft (141.9 m)
			20 Awg	738.9 ft (225.2 m)
			18 Awg	1,175.5 ft (358.3 m)
			16 Awg	1,865.7 ft (568.7 m)
HB6000/220	230 VAC	90 watts	24 Awg	1,047.4 ft (319.3 m)
			22 Awg	1,666.0 ft (507.8 m)
			20 Awg	2,649.2 ft (807.5 m)
			18 Awg	4,214.6 ft (1,284.6 m)
			16 Awg	6,688.8 ft (2,038.8 m)
HB6024	24 VAC	90 watts	20 Awg	31.5 ft (9.6 m)
			18 Awg	50.2 ft (15.3 m)
			16 Awg	79.6 ft (24.3 m)
			14 Awg	127.0 ft (38.7 m)

4.3.2 Heater/Blower Kit Installation

To install the HB6000, HB6000/220, HB6024, perform the following steps (refer to Figure 1).

4.3.2.1 Heater Assembly

1. Open an access door (both if needed).
2. The heater bracket is designed to attach to two (2) adjacent studs retaining the window.
3. Remove any two (2) adjacent nuts and washers on both sides of the window.
4. Place the heater brackets on the studs, heaters angled away from the window, and replace and tighten the hardware.

4.3.2.2 Blower/PCB Assembly

1. Open an access door (both if needed).
2. On the HS6000, the blower/PCB bracket is designed to attach to the two (2) studs at the bottom of the window.
3. Remove the nuts and washers retaining the bottom of the window.
4. Place the blower/PCB bracket over the studs and replace and tighten the hardware.

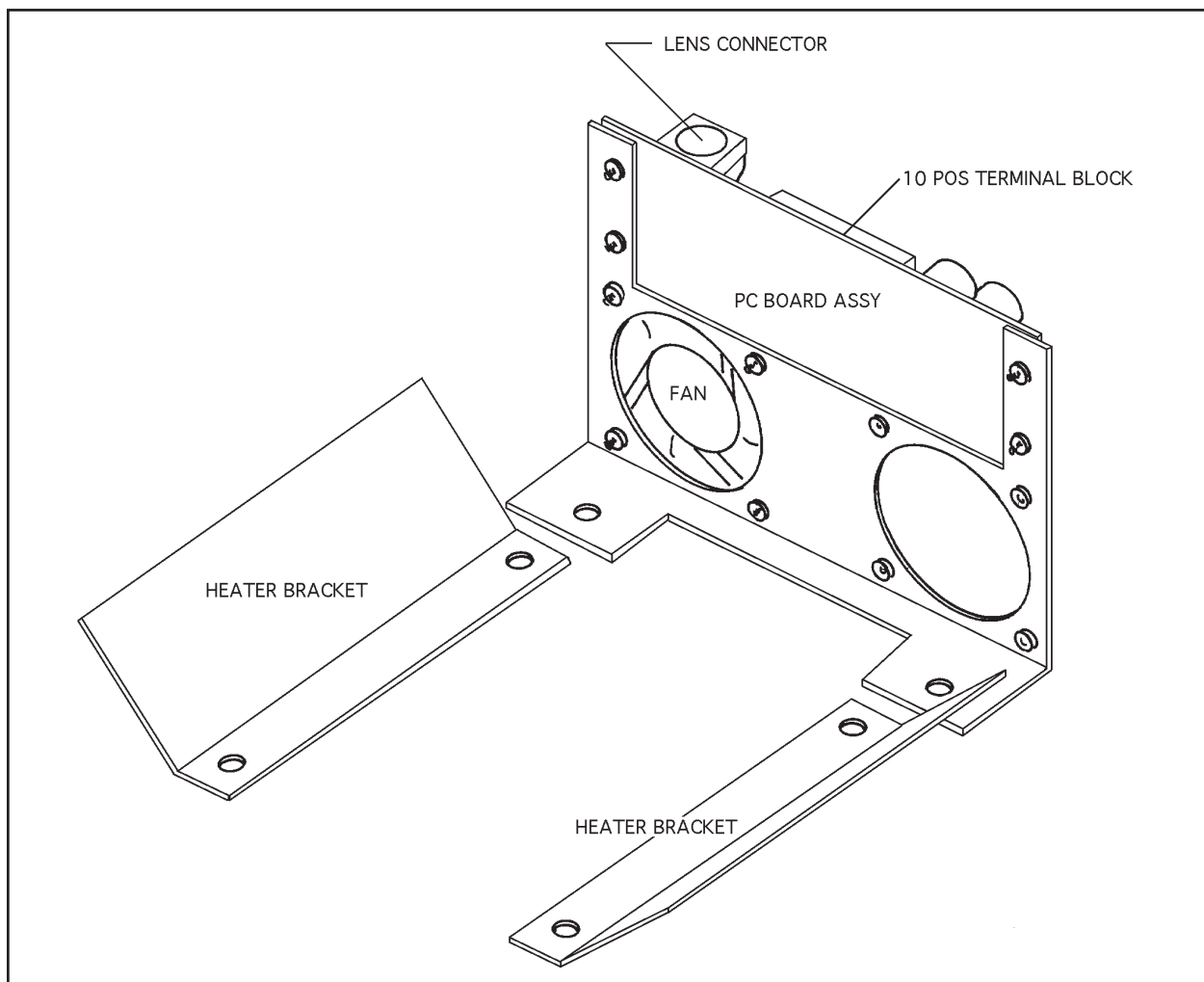


Figure 1. HB6000, HB6000/220, HB6024 Assembly

The blower is factory wired to the PCB assembly. Connect the heaters to the PCB assembly as shown in the respective wiring diagrams (Figure 2, Figure 3, or Figure 4). Supply AC line voltage (230 VAC, 120 VAC, or 24 VAC) as shown.

After the cable has been routed, all wire connections should be made (i.e., video, lens, camera power, heaters).

4.5 WATTS

FAN 120VAC

30 29 28 27 26 25 21

20 19 18 17 16 15 14 13 12 11

3K OHM

1 2 3 4 5

LENS

1 2 3 4 5 6 7 8 9 10

PC BOARD

WHT

WHT

HEATER 40 WATTS 120 VAC

HI NT GRD

AC IN

WHT

WHT

HEATER 40 WATTS 120 VAC

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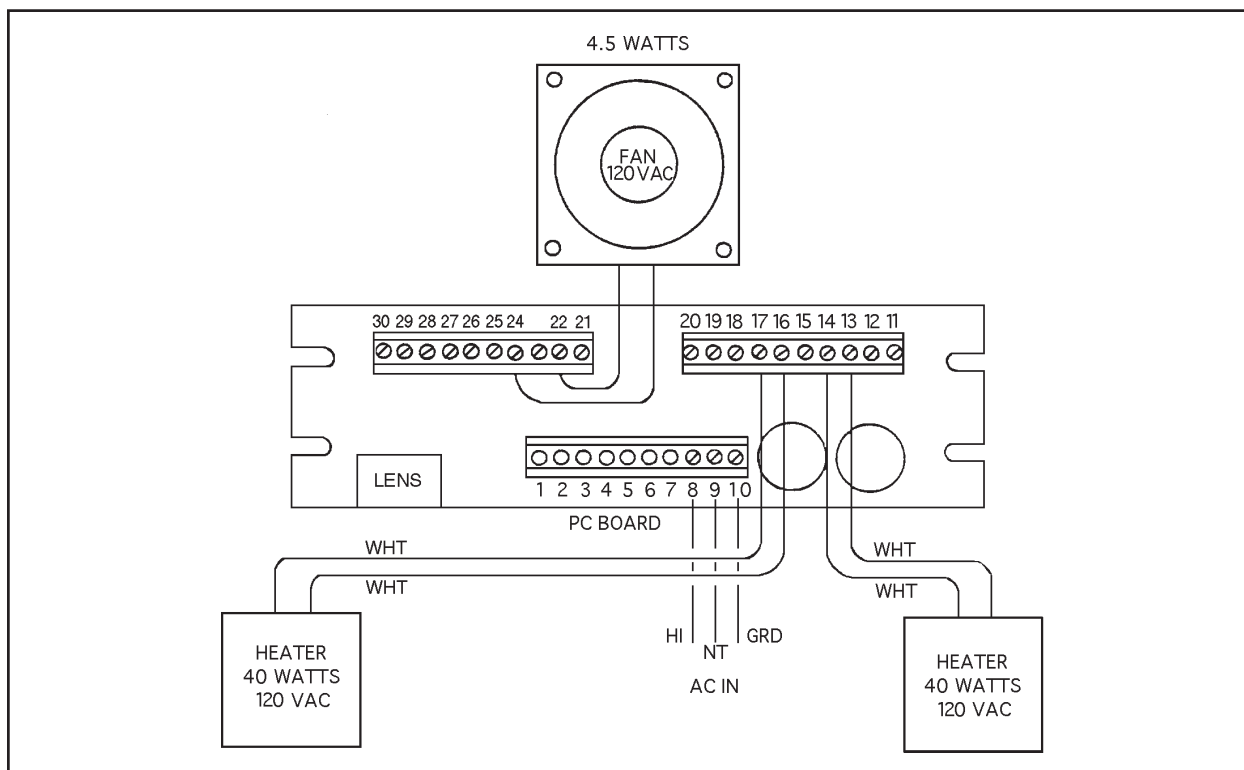


Figure 3. HB6000 Heater/Blower Kit Wiring Diagram (120 VAC)

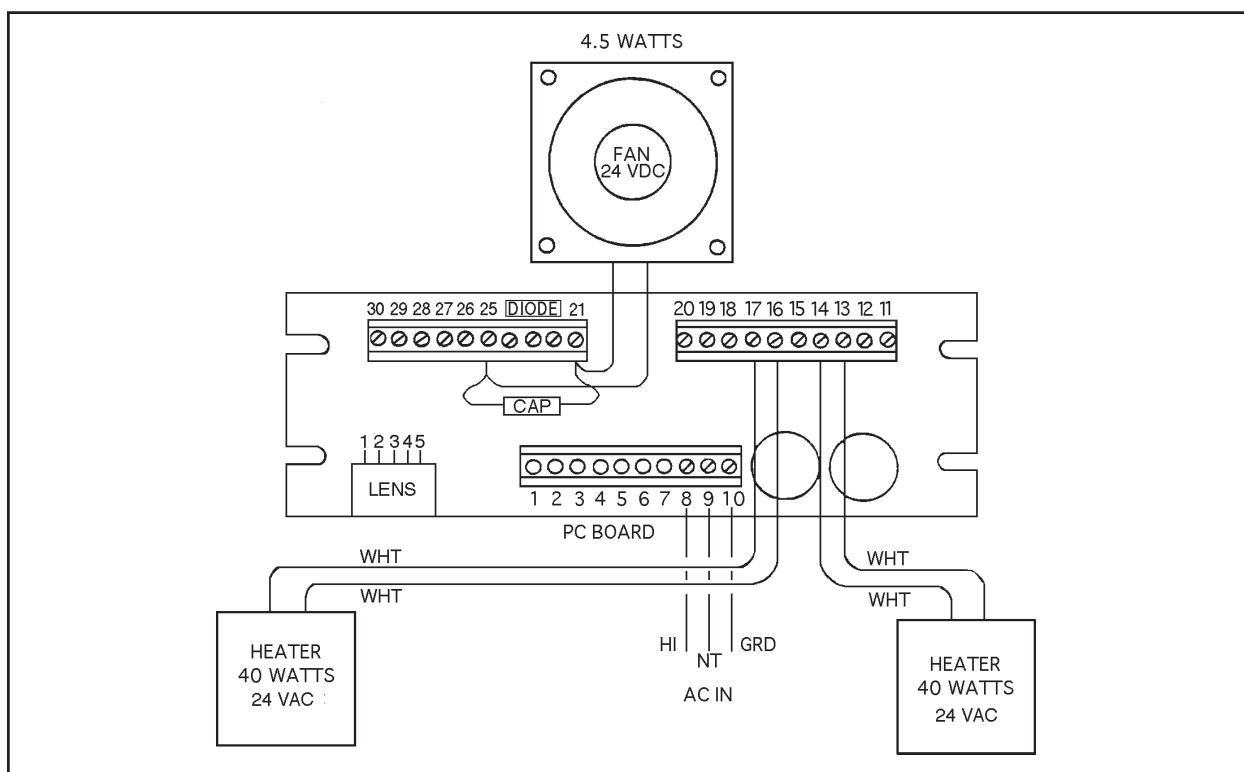


Figure 4. HB6024 Heater/Blower Kit Wiring Diagram (24 VAC)

5.0 CARE AND MAINTENANCE

Maintenance performed at regularly scheduled intervals will help prolong the operational life and appearance of the equipment.

1. Clean the Lexan window with a mild non-abrasive detergent in water and a soft cloth regularly to help maintain picture clarity. For a heavily soiled window, use vinyl cleaner.

NOTE: Pelco offers a 24-hour, seven-day-a week Technical Assistance Program (TAP) designed to assist any customer with a technical problem involving Pelco equipment whether it's the weekend or late at night. For technical assistance dial (800) 289-9100 and you will be connected to a Pelco TAP member who is trained to answer your questions.

Pelco also guarantees one-day turnaround on any Pelco equipment sent in for repair. This includes warranty and non-warranty items. Refer to the section on "Warranty and Return Information" in this manual for the proper procedure.

6.0 TAMPER SWITCH INSTALLATION

The HS6000 enclosures come standard from the factory with a tamper switch(es) mounted on the secured access door. Refer to Section 6.1 for wiring.

To install a replacement tamper switch, refer to Figure 5 for the correct position of the bracket/switch and perform the following steps:

1. Remove the screws securing the access door of the desired "alarmed" opening.
2. Install the bracket so that the mounting studs go through the slots in the bracket.

NOTE: The slot in the bracket allows the switch to be used against either the 1/2" thick lexan window or the .134" thick metal plate.

3. If the switch is to be used against the metal plate, slide the bracket so that the studs are at the end of the slot that is furthest from the switch plunger.
4. If the switch is to be used against the Lexan window, slide the bracket so that the studs are at the end of the slot nearest the switch plunger.
5. Secure the bracket/switch with lockwashers and nuts.

6.1 WIRING THE UNIT

The tamper switch comes with both a "Normally Open" contact and a "Normally Closed" contact.

For a "Normally Open" circuit, use the "open" and "common" terminals; for a "Normally Closed" circuit, use the "closed" and "common" terminals.

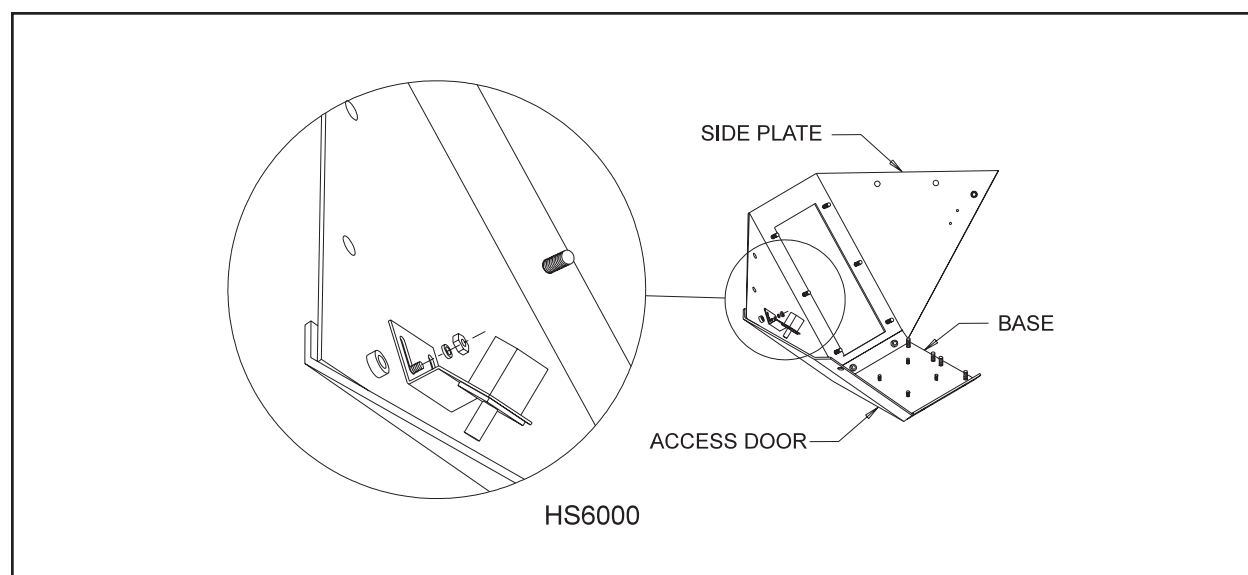


Figure 5. HS6000 Series Tamper Switch Installation

7.0 EXPLODED ASSEMBLY DIAGRAM

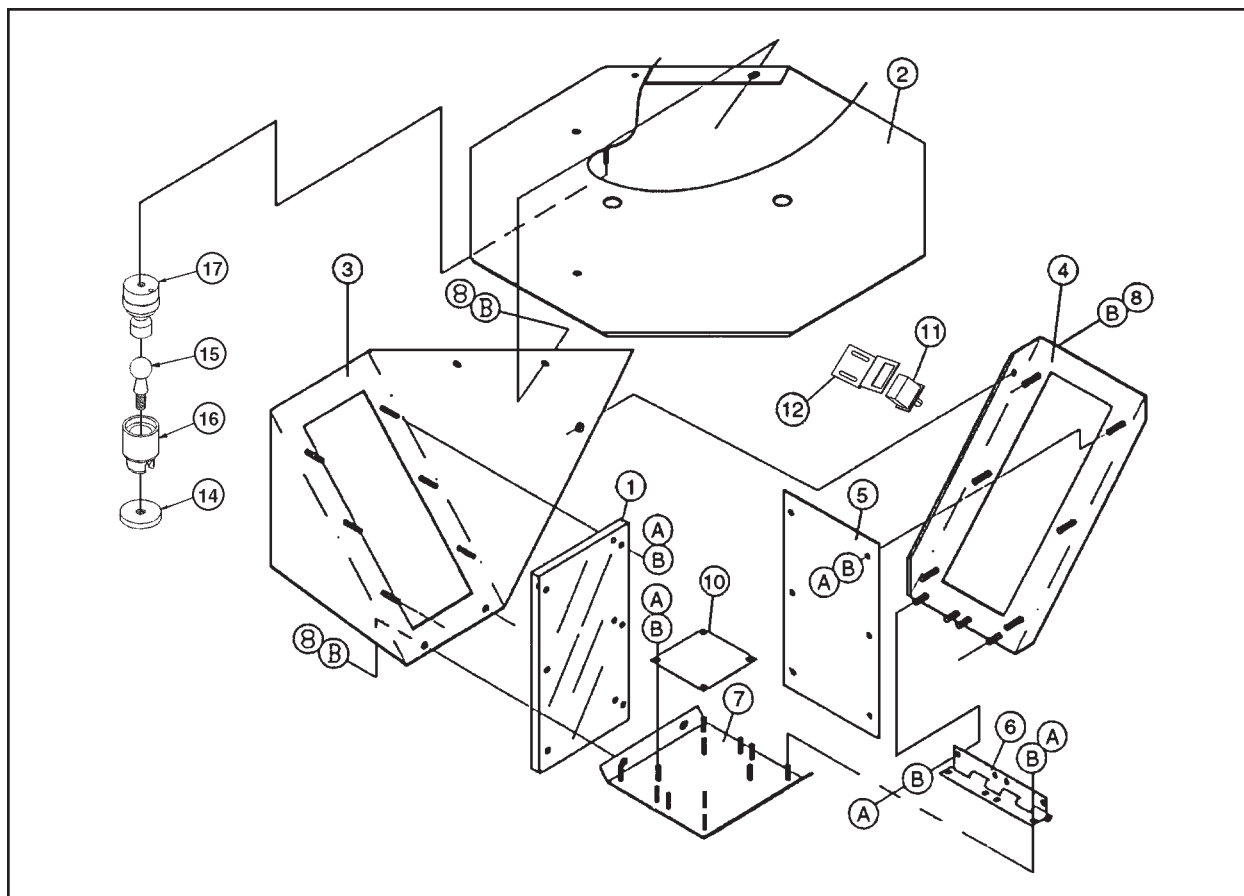


Figure 6. HS6000 Series Enclosure Exploded Assembly Diagram

7.1 MECHANICAL PARTS LIST FOR HS6000 SERIES ENCLOSURE

Item No.	Qty	Description	Part Number
1	2	Window, Lexan, 6" x 1" x .50", Clear	HS600010018
2	1	Plate, Top/Mounting	HS60004001COMP
3	2	Plate, Side	HS60004003COMP
4	2	Plate, Access Door	HS60004004COMP
5	2	Plate, Blank/Filler	HS60004018COMP
6	2	Hinge	HS60004007COMP
7	1	Plate, Bottom/Hinge	HS60004009COMP
8	4	NP TPE, Acry Foam, Y-4930, 1" 2592IN/RL	ZHTAPE1.0X.025
9	1	Socket, Tampruf #10, 1/4" Drive	ZTSOCKET10
10	1	Plate, Grill, Block-Off	HS80004115COMP
11	2	Switch, Tamper	SW11DM401
12	2	Bracket, Switch, Break-In	HS60004113COMP
13	2	Camera Pad	CM1700120007
14	2	Camera Mounting Nut	CM17504004COMP
15	2	Ball Stud	CM17504003COMP
16	2	Ball Stud Sleeve	CM17504002COMP
17	2	Ball Anvil	CM17504005COMP

8.0 SPECIFICATIONS

MECHANICAL

Window:	1/2" (1.27 cm) thick impact and abrasion resistant Lexan
Camera Mounting:	Adjustable tilt table and/or ball swivel
Maximum Camera/Lens Size:	Accepts camera/lens combinations up to 8.0" L x 4.0" W x 4.0" H (20.32 cm x 10.16 cm x 10.16 cm)
Enclosure Mounting:	Eight (8) .390" (0.99 cm) diameter holes on protected mounting plate
Security:	Tamper-resistant screws N.O./N.C. switch contact on covers
Tamper Switch:	Plunger type door switch with "pull to cheat" feature. N.O./N.C. contacts clearly marked on body of switch. DM electrical rating: 10A, 125V. Plunger type with .20" (0.51 cm)

ELECTRICAL

Cable Entry:	Access through top; accepts 4" (10.16 cm) electrical box Four (4) 1/2"-3/4" (1.27-1.90 cm) knockouts
Tamper Switch:	1/4" (.63 cm) quick connect. N.O./N.C. clearly marked on switch body. 10A, maximum switching current 125V, maximum switching voltage.

GENERAL

Construction:	Formed 10 gauge .134" (0.34 cm) steel
Finish:	Polyester powder coat
Dimensions:	See Figure 7
Environment:	Indoor
Unit Weight:	46 lbs, 6 ozs (20.87 kg)

Product specifications subject to change without notice.

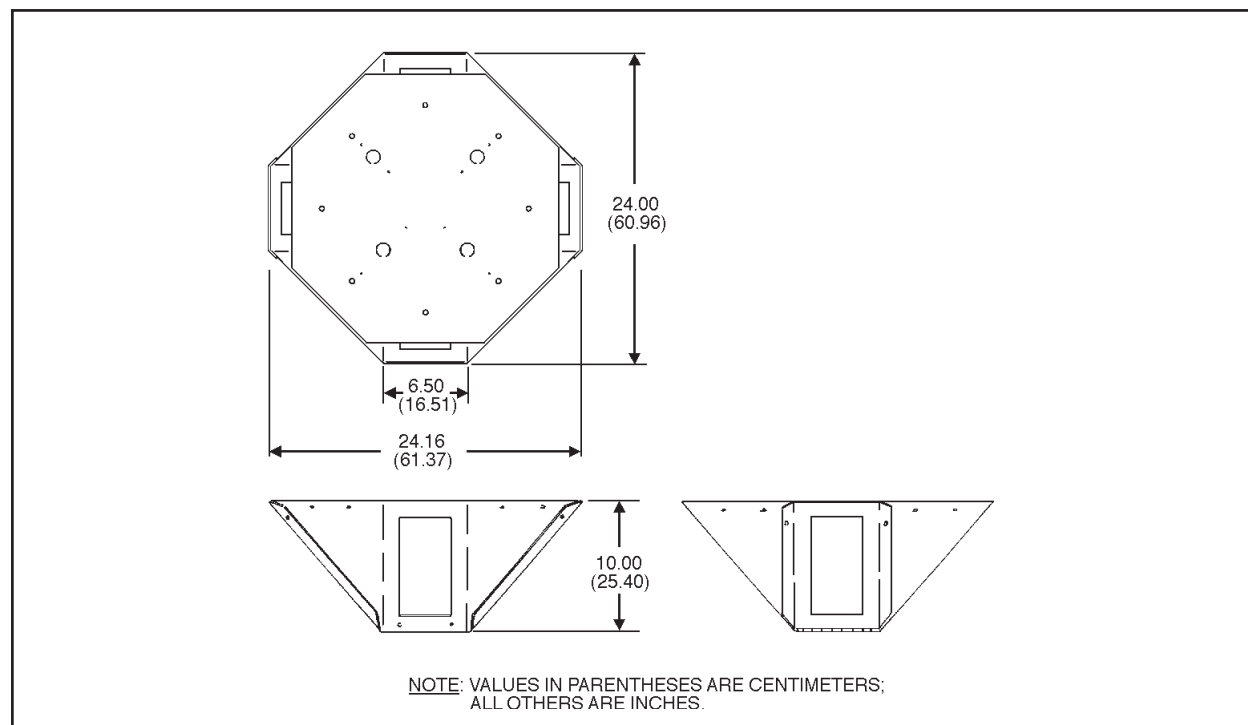


Figure 7. HS6000 Dimension Drawing

9.0 WARRANTY AND RETURN INFORMATION

WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship for a period of one year after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years on FT/FR8000 Series fiber optic products.
- Three years on Genex® Series products (multiplexers, server, and keyboard).
- Three years on Camclosure® and fixed camera models, except the CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models, which have a five-year warranty.
- Two years on standard motorized or fixed focal length lenses.
- Two years on Legacy®, CM6700/CM6800/CM9700 Series matrix, and DF5/DF8 Series fixed dome products.
- Two years on Spectra®, Esprit®, ExSite™, and PS20 scanners, including when used in continuous motion applications.
- Two years on Esprit® and WW5700 Series window wiper (excluding wiper blades).
- Eighteen months on DX Series digital video recorders, NVR300 Series network video recorders, and Endura™ Series distributed network-based video products.
- One year (except video heads) on video cassette recorders (VCRs). Video heads will be covered for a period of six months.
- Six months on all pan and tilts, scanners or preset lenses used in continuous motion applications (that is, preset scan, tour and auto scan modes).

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to Pelco, Clovis, California. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800) 289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

1. Model and serial number
2. Date of shipment, P.O. number, Sales Order number, or Pelco invoice number
3. Details of the defect or problem If there is a dispute regarding the warranty of a product which does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

RETURNS

In order to expedite parts returned to the factory for repair or credit, please call the factory at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair).

All merchandise returned for credit may be subject to a 20% restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid. Ship to the appropriate address below.

If you are located within the continental U.S., Alaska, Hawaii or Puerto Rico, send goods to:

Service Department
Pelco
3500 Pelco Way
Clovis, CA 93612-5699

If you are located outside the continental U.S., Alaska, Hawaii or Puerto Rico and are instructed to return goods to the USA, you may do one of the following:

If the goods are to be sent by a COURIER SERVICE, send the goods to:

Pelco
3500 Pelco Way
Clovis, CA 93612-5699 USA

If the goods are to be sent by a FREIGHT FORWARDER, send the goods to:

Pelco c/o Expeditors
473 Eccles Avenue
South San Francisco, CA 94080 USA
Phone: 650-737-1700
Fax: 650-737-0933



This equipment contains electrical or electronic components that must be recycled properly to comply with Directive 2002/96/EC of the European Union regarding the disposal of waste electrical and electronic equipment (WEEE). Contact your local dealer for procedures for recycling this equipment.